

1
2
3 ABSTRACT
4

5 Apparatus and method for controlling force applied to and for manipulation of
6 medical instruments. An elongated member of a medical instrument can be sensed, and an
7 actuator can be used to apply force to the medical instrument for control and manipulation of
8 the instrument. Via use of the applied forces, the instrument can be moved to a desired
9 position in a working channel, haptic indications of position can be output to the user, and/or
10 user control over the instrument can be enhanced.
11